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1 SUPERIOR COURT OF THE STATE OF CALIFORNIA
2 COUNTY OF SAN FRANCISCO

3 ----oOo----

4 LESLIE WHITELEY AND LEONARD
WHITELEY,

5
6 Plaintiffs,

7 vs.

No. 303184

8 RAYBESTOS-MANHATTAN, et al.,

9 Defendants.

10 _____/

11
12
13
14 DEPOSITION OF
15 DAVID J. TEECE, Ph.D.

16
17 _____
18 Wednesday, March 15, 2000

19
20
21 REPORTED BY: MARK W. BANTA, CSR #6034
22
23

24 TOOKER & ANTZ
COURT REPORTING & VIDEO SERVICES
818 Mission Street, Fifth Floor
25 San Francisco, California 94103

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1 BE IT REMEMBERED on Wednesday, March 15, 2000,
2 commencing at 5:16 p.m. thereof, at the Offices of Howard,
3 Rice, Nemerovski, Canady, Falk & Rabkin, Three Embarcadero
4 Center, Seventh Floor, San Francisco, California, before me,
5 MARK W. BANTA, Certified Shorthand Reporter No. 6034 for the
6 State of California, personally appeared
7 DAVID J. TEECE, Ph.D.
8 called as a witness, who having been first duly sworn, was
9 examined and interrogated as hereinafter set forth.

10 ---oOo---

11 A P P E A R A N C E S
12 WARTNICK, CHABER, HAROWITZ, SMITH & TIGERMAN, 101
13 California Street, Suite 2200, San Francisco, California
14 94111, represented by ROBERT M. BROWN, Attorney at Law,
15 appeared as counsel on behalf of the Plaintiffs.
16 HOWARD, RICE, NEMEROVSKI, CANADY, FALK & RABKIN,
17 Three Embarcadero Center, Seventh Floor, San Francisco,
18 California 94111, represented by H. JOSEPH ESCHER III,
19 Attorney at Law, appeared as counsel on behalf of the
20 Defendant R.J. Reynolds Tobacco Company.
21 SHOOK, HARDY & BACON, LLP, One Market Street,
22 Steuart Tower, Ninth Floor, represented by GERALD V. BARRON,
23 Attorney at Law, appeared as counsel on behalf of the
24 Defendant Philip Morris.

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1 EXAMINATION BY MR. BROWN
2 MR. BROWN: Q. Dr. Teece, would you state your
3 full name for the record, please?
4 A. David John Teece.
5 Q. You are a professor at the University of
6 California, Berkeley?
7 A. Yes.
8 Q. And I see by the designation that you are the
9 Mitsubishi Bank Professor in the Haas School of Business.
10 Did I say that right?
11 A. You did, indeed.
12 Q. And what is the Mitsubishi Bank Professor?
13 A. It's a chaired professorship. As you know, the
14 university has a number of these that are reserved for
15 distinguished faculty, and it was a chair into which I was
16 appointed six or seven years ago.
17 Q. It's funded by Mitsubishi Bank? Is that it?
18 A. Yes, it is. Well, there is a research endowment
19 attached to it that is funded by the Mitsubishi Bank. The
20 appointment itself is funded by the university.
21 Q. It says also in that designation you're a director
22 of Navigant Consulting, Inc. What is that?
23 A. I'm a director of a Law Economics Consulting Group
24 which is a unit of Navigant Consulting. Navigant is a
25 global economic and management consulting firm.

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1 Q. And you do economic consulting work for them or
2 through them, then?
3 A. Through LECG, yes, I consult on economic-related
4 topics.
5 Q. It also says here you've published over 100 books
6 and articles in various fields. Let me ask, have you ever
7 published anything on the subject of punitive damages?
8 A. I've published on damages, but not specifically on
9 punitive damages.
10 Q. Give me just a general sense of what your
11 publication or publications were on damages.

12 A. Well, the issue from an economic point of view
13 with damages is questions associated with compensation and
14 deterrence. And so when economists look at questions of
15 damages, they usually have both issues in mind.
16 My applications in that area have been mainly
17 around intellectual property damages and how to set damages
18 in a way that incents the right behavior. But I have
19 published widely in the general field of law economics,
20 looking at how you apply complex -- or economic analysis to
21 complex questions in the law.
22 Q. Okay. And you said deterrence, but you also said
23 you hadn't published on punitive damages, so you took a
24 position in your -- some of your writings that actual -- or
25 compensation for actual damages had some deterrent value?

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1 A. In the intellectual property area, for instance,
2 one of the issues is the extent to which you want to create
3 a system that will, for instance, disincent people from
4 engaging in the theft of trade secrets. So in that context,
5 one looks at damages with an eye towards not just
6 compensation but also in some cases disincenting theft so
7 that transactions take place in the marketplace rather than
8 in the courtroom.

9 Q. Okay. I don't know if something is coming up
10 here on these subjects or not, but let me take a look here.
11 We asked you to bring certain things. Let's start with
12 billing records. Have you brought billing records for this
13 case so far?

14 A. No.

15 Q. Can you give me a rough approximation of the
16 number of hours you've spent getting ready for this?

17 A. It would be somewhere between 50 and 100,
18 something of that order of magnitude that I've spent.

19 Q. And that's at an hourly rate that's probably set
20 forth in here. What is it? 550 an hour?

21 A. That's correct.

22 Q. Which reminds me, I didn't bring a check but I'll
23 get you one tomorrow.

24 MR. ESCHER: You got the check today for last
25 night, didn't you?

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1 MR. BROWN: I don't know if it -- I can't say I
2 didn't, but I didn't personally see it.

3 MR. ESCHER: Okay. Well, let's try and get us the
4 check for this one tomorrow.

5 MR. BROWN: I will.

6 MR. ESCHER: Okay.

7 MR. BROWN: It's probably over there. I just
8 probably walked away and left it.

9 Q. So you say -- that's a pretty wide variation, 50
10 to 100. Can you be a little more specific in terms of the
11 amount of hours you may have spent?

12 A. No, not without going back and checking my
13 records.

14 Q. Okay. Just tell me --

15 A. But it certainly wouldn't be a thousand.
16 Something in that order of magnitude.

17 Q. Just tell me generally what did you do in this 50
18 to 100 hours?

19 A. First of all, I familiarized myself with the
20 complaint.

21 I refreshed my memory with respect to the
22 economics literature on damages, particularly punitive

23 damages and questions of deterrence.
24 I spent considerable amount of time reviewing the
25 MSA and the four related state agreements.

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1 I have also given attention to the amount of taxes
2 and so forth that are paid on tobacco, and I've generally
3 familiarized myself with the situation with respect to new
4 product development in the tobacco industry and things of
5 that kind.

6 Q. With respect to that latter, be more specific, if
7 you can. What new product development did you make yourself
8 familiar with?

9 A. Well, the programs at Philip Morris and RJR with
10 respect to the development of safe cigarettes such as
11 Eclipse and Premiere.

12 Q. You understand that those are safe cigarettes?

13 A. As I just said, these were efforts to make a safer
14 cigarette. They didn't sell very well, but there have been
15 considerable efforts in the industry over time to come up
16 with a safer cigarette, although none of them have produced
17 anything that has been commercially viable so far in terms
18 of the, you know, safer cigarette. But over time there have
19 been significant improvements such as reductions in tar and
20 filters and so forth that have made cigarettes safer, but
21 that's still not the gold standard that we would all wish to
22 have.

23 Q. Were you advised by anybody in the tobacco
24 industry or from RJR or from Philip Morris that either one
25 of those cigarettes is a safe cigarette?

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1 MR. ESCHER: Objection. Vague. Which? Which
2 cigarettes are you referring to?

3 MR. BROWN: Q. Premere and Accord, I think.
4 Isn't that what you mentioned? Premiere and Accord?

5 A. I did mention the names Premiere and Accord, yes.

6 Q. I'm sorry. Have you been told by someone in the
7 industry, including these two companies, that either one of
8 those is a safe cigarette?

9 A. No.

10 Q. Have you been told by anyone in the industry that
11 they are any safer than any other cigarette?

12 A. It is my understanding, I don't recall
13 specifically where I got it from, that they involved efforts
14 to come -- well, they were the results of efforts to come up
15 with a safer cigarette. As to the technical properties, I'm
16 not familiar with them as I sit here right now.

17 Q. So you don't know whether or not they were
18 successful in making a cigarette in Accord or Premiere that
19 was any safer than any other cigarette then?

20 A. Well, it's my understanding that they were but
21 that they didn't sell because they didn't have the taste and
22 other attributes that smokers were looking for.

23 Q. Where did you get that understanding?

24 A. It's an understanding that I've gotten from some
25 of the general literature on this topic, and also I was a

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1 consultant on some antitrust issues for RJR and Philip
2 Morris where I picked up a general understanding about these
3 issues.

4 Q. Have you ever had a conversation with RJR or
5 Philip Morris scientists on the subject of whether Accord or
6 Premiere are safer than any other of the brands that those
7 two companies sell?

8 MR. ESCHER: Can I interject one point here, Bob?
9 You're referring to Accord or Premiere. Do you mean to
10 exclude Eclipse on purpose?
11 MR. BROWN: No. We can throw in Eclipse. I'd be
12 happy to.
13 THE WITNESS: Okay. Could I have the question
14 again, please?
15 MR. BROWN: Q. Have you ever talked with any
16 science people at either company, Philip Morris or RJR, on
17 the subject of whether or not any of these three cigarettes
18 now, Eclipse, Premiere and Accord, are safer than any other
19 brand sold by the two companies?
20 A. I don't recall specifically putting that question,
21 no.
22 Q. Did you get an impression from any of those
23 conversations that they were safer than any other brands?
24 A. Yes, I did get the impression over time from a
25 number of sources, I can't tell you what, that they were
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1 safer, but that as I said they weren't commercially
2 successful because they didn't meet other attributes that
3 smokers are looking for, such as having good taste.
4 Q. Did your impressions in part come from scientists
5 at either RJR or Philip Morris?
6 A. No, I wouldn't say so.
7 Q. Let's move away from that one for now and move
8 forward. Let's see if there's anything else in what we
9 asked you to bring.
10 THE WITNESS: May I get some water?
11 MR. BROWN: Sure. Can you do two things at once?
12 THE WITNESS: Okay.
13 MR. BROWN: Q. Would you tell me what materials
14 you reviewed to get ready for the deposition today? Just
15 generally.
16 A. I've reviewed a number of the academic writings on
17 damages and punitive damages. I've reviewed the complaint,
18 the MSA. I did take a brief look at some of the material
19 posted by NAAG on the MSA.
20 Q. Tell me who that is.
21 A. NAAG. National Association of Attorneys General.
22 Q. Oh, all right.
23 A. And I've looked at general industry statistics and
24 taxation data and things of that kind.
25 Q. What kind of statistics did you look at?
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1 A. Revenue data, cigarette taxes and the like.
2 Q. Did you do any forecasting of future sales for
3 either RJR or Philip Morris?
4 A. No.
5 Q. Let me move to the six subjects that have been --
6 you've been designated for.
7 A. Okay.
8 Q. Did you ever see your designation?
9 A. Yes, I believe.
10 Q. Do you have it in front of you there?
11 A. I have it in front of me, yes.
12 Q. Would you just look it over yourself there. I
13 think there are six subjects that are listed. And after you
14 get through looking them over, I'm going to ask you if there
15 are any other general subjects that you are aware of that
16 you're going to be testifying about.
17 A. Okay.
18 Q. Any others besides those six?

19 A. I think these general categories encompass the
20 totality of what I'm likely to be asked to testify on, but,
21 of course, I don't ask the questions.

22 Q. Okay. Let me ask you this, coming off number 1.
23 From your perspective as an economist, what is the purpose
24 and effects of punitive damages?

25 A. I believe there are two. One is deterrence and
0013 1 the other is punishment.

2 Q. Have you had an opportunity to meet with attorneys
3 from either RJR or -- not from them but representing RJR or
4 Philip Morris about your testimony?

5 A. Yes.

6 Q. Have you discussed with them the opinions that
7 you're going to give?

8 A. Yes.

9 Q. On this first subject, what opinions have you told
10 them or they've asked you to give with respect to subject
11 number 1?

12 A. Well, the -- from an economic perspective, the
13 idea with punitive damages is to -- to affect behavior in a
14 way that's beneficial that, you know, helps public health in
15 this case and generally has a positive impact on industry
16 outcomes.

17 Q. Are you going to render any opinion as to whether
18 or not from an economist's perspective punitive damages,
19 should the jury decide they should be considered, should be
20 awarded or not?

21 A. No.

22 Q. Let's go on to number 2. I'll read it for the
23 record. "The potential impact of serial punitive damages
24 awards on future innovation within the tobacco industry."
25 Let me ask you a couple of questions about the
0014 1 phraseology. The phrase "serial punitive damages," is that
2 your phrase? Did you suggest that?

3 A. I don't know I've suggested that particular word,
4 but I certainly understand the concept.

5 Q. Okay. Explain to us what serial punitive damages
6 awards means to you.

7 A. Referring to the fact that maybe punitive damages
8 are levied not just in one case but there's been in others,
9 and one has to from an economic point of view at least look
10 at the totality of the effects.

11 Q. So by serial punitive damage, you're talking about
12 a potential that in many future cases RJR or Philip Morris
13 may be subject to punitive damage awards? Is that the idea?

14 A. That's the idea behind the notion of serial
15 punitive damages, yes.

16 Q. Okay. Future innovation, which is in that same
17 number 2. What do you understand that means?

18 A. By that reference is made to, in particular,
19 improvements in cigarettes such that they're safer. As we
20 were discussing before, there's been an effort for some time
21 to make cigarettes safer. That innovation has been
22 sometimes of the incremental kind like eliminating or
23 reducing tar, but there's always, of course, the hope that
24 there will be a break-through, a radical innovation that
25 would produce a safer cigarette that would both be
0015 1 beneficial from the prospective of public health and also
2 acceptable to smokers.

3 Q. What in your opinion is the potential impact of

4 serial punitive damage awards on future innovation at Philip
5 Morris and at RJR?

6 A. Well, I think there's two aspects that are
7 relevant with respect to large punitive damages. One is
8 that the resource base that supports research and
9 development and other expenditures would be somewhat
10 reduced, maybe possibly considerably reduced as a result of
11 large serial punitive damage awards.

12 And various studies that have been done on
13 research and development not just in the tobacco industry
14 but in other industries, including some that I've done
15 myself, show that the best predictor of how much a company
16 spends on the category of an expenditure known as research
17 and development is the amount of cash flow that they have.
18 So if you take away from the company's cash flows it tends
19 to have an effect on research and development expenditures,
20 and if research and development expenditures are lowered
21 then the kinds of programs that one might wish to engage in
22 in order to come up with something that's dramatically
23 better than existing products might well be attenuated.
24 That's one aspect of it.

25 The other aspect of it is that, you know, there
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1 has already been considerable effort in the past to come up
2 with cigarettes that are safer. I mentioned before tar
3 reduction, filters, things of that kind, and very
4 considerable expenditures around Premiere and Eclipse and so
5 forth. And you know, there's a danger that if one doesn't
6 recognize the efforts that have been made that the behavior
7 of parties may not be -- may not be as positive as you might
8 otherwise think. I'm making a general concept here that
9 if -- you're damned if you do and damned if you don't;
10 there's sometimes a tendency to throw -- throw in the towel
11 as a general proposition.

12 So I think that in setting punitives, one has
13 to from an economic point of view at least be cognizant of
14 the efforts that have been made and at least recognize them
15 in some way.

16 Q. Are you going to testify any more specifically on
17 the impact of serial punitive damages on RJR or Philip
18 Morris other than what you've just said? I mean let me say
19 where I'm coming from.

20 A. Yes.

21 Q. My perception of what you said is that you have
22 given us a general concept --

23 A. Right.

24 Q. -- that if punitive damages reduces cash flow,
25 then cash flow reduction would have an impact on research

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1 and development toward a safer cigarette. That was one.

2 And number two is if you're going to be punished
3 anyway, then perhaps some in the industry might develop a
4 philosophy that "we're damned if we do and we're damned if
5 we don't, so the hell with it." Have I stated those
6 relatively accurately?

7 A. Yes.

8 Q. Are you going to get any more specific than that
9 in terms of impact on Philip Morris or R.J. Reynolds?

10 MR. ESCHER: Objection. Vague. Go ahead and try
11 and answer the question.

12 (Brief interruption.)

13 THE WITNESS: Yes, I'm sure I will be more
14 specific.

15 And there's another related aspect that I think is
16 relevant here, and that is that to the extent to which you
17 hobble the companies in the industry that have in fact
18 worked the hardest to come up with safer cigarettes, you
19 make room for more marginal companies that are perhaps
20 fly-by-night and certainly don't have either the resources
21 or the capabilities to do the kind of dogged research that's
22 significantly science based that is necessary or likely to
23 be necessary to come up with a safer cigarette. So there is
24 that element as well, that you may well create an industry
25 structure which marginalizes RJR and Philip Morris and

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1 provides greater scope for new start-up companies that may
2 be offshore that have shallow pockets and don't have the
3 commitment to a bona fide research program that is -- you
4 know, provides at least a chance of improving the technology
5 of smoking.

6 MR. BROWN: Q. Are you going to say anything
7 specifically about whether any one of these three will in
8 fact impact, as you've described them here, either RJR or
9 Philip Morris?

10 Was that understandable, that question? Or should
11 I try again?

12 A. Yeah, can you maybe try it again?

13 Q. Okay. You've given us three general potential
14 impacts that, as I understand it, are at least so far
15 general in nature across the tobacco industry.

16 A. Yes.

17 Q. Would that be right?

18 A. Yes.

19 Q. Okay. Now, are you going to -- is it your opinion
20 that any one of those three are more likely than not
21 something that would happen with either RJR or Philip
22 Morris?

23 MR. ESCHER: Do you understand that question?

24 THE WITNESS: No, I don't, when you say more
25 likely than not. I mean I believe that the general effect

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1 is going to be there, so, you know, it's only a question of
2 amount. It will happen; the question is by how much. And I
3 don't have any more specific guidance as to how much. And I
4 say that based on the economic analysis.

5 MR. BROWN: Q. Let me ask you, then, using a
6 different word. I'll use "probably" as opposed to
7 "possibly."

8 And in your opinion, is it probable, for example,
9 that serial damage awards would have the effect at RJR of
10 reducing their cash flow and therefore reducing in some
11 significant way their research and development efforts?

12 A. Yes.

13 Q. And the same with Philip Morris?

14 A. Yes.

15 Q. Okay. Let's take the second one. Is it your view
16 that probably Philip Morris would take on a "damned if we do
17 and damned if we don't" attitude and therefore cut back in
18 some significant way on their research and development as a
19 result of punitive damages?

20 A. No, I wouldn't put it quite that way. I do
21 believe as a matter of overall corporate philosophy and
22 strategy that the company would try to do its best, but you
23 have to recognize the reality of corporate culture that, you
24 know, employees are, you know, not being monitored every
25 minute of the day and they have to be motivated in order to

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1 accomplish corporate goals. And so I'm really not referring
2 to any managerial decisions; I'm merely referring primarily
3 to the culture and the disenchantment which it could cause
4 inside the industry.

5 Q. So are you saying in your opinion the culture as
6 you've described it, the impact on the culture of serial
7 punitive damages would probably significantly reduce
8 research and development success or efforts because of the
9 punitive damages?

10 MR. ESCHER: Objection. Vague.

11 Go ahead and try to answer, if you can.

12 THE WITNESS: As I said, I believe that, you know,
13 there's sort of -- there's three things you need for a
14 successful -- at least three things you need for a
15 successful R&D program: You need the money, you need the
16 capabilities, you need the managerial commitment to it and
17 you need the employees of the company that are involved in
18 doing the testing, doing the day-to-day things to be
19 motivated.

20 And all I'm suggesting with respect to this point
21 is that even though I believe that management would stay
22 committed, as a matter of organizational culture it would --
23 the companies would be dissipated people, inside of them
24 would be dissipated people because they don't feel that
25 their efforts in the past had been recognized in any way and

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1 that could well have a deleterious impact on the product
2 internally and therefore on outcomes.

3 Q. I'm hearing you say that's possible.

4 A. Yes.

5 Q. But is it your opinion that probably there would
6 be a significant negative impact on research and development
7 because of what you just explained regarding the culture of
8 the corporate animal?

9 A. In your mind, what's the probability? When you
10 move from possible to probable, what is the quantitative
11 threshold?

12 Q. I would just use the normal English usage.

13 MR. ESCHER: I think he means greater than 50
14 percent.

15 THE WITNESS: Oh. I haven't focused on that
16 particular question so far.

17 MR. BROWN: Q. So you don't have an opinion on
18 that?

19 A. Not as I sit here right now, but I may well
20 reflect on it in the meantime.

21 Q. Now, I've been asking about using the phrase
22 significant impact on research and development. Do you have
23 an opinion as to what the degree of significant impact is
24 probable from any of these three areas that you've listed in
25 terms of punitive damages and the impact on research and

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1 development?

2 A. I haven't done a quantitative study myself that's
3 particularly focused on the facts of this case.

4 As I have said before, there's a very high
5 statistical correlation between this year's expenditure on
6 R&D and prior years' cash flows. There's a lag structure
7 there, but that is the basic structure of statistical models
8 that predict very nicely what companies spend on R&D. As I
9 sit here right now, I don't have the particular coefficients
10 in my mind.

11 Q. So you don't have an opinion, then, on what degree
12 of impact, if any, would occur in the research and
13 development area because of punitive damages?

14 A. Well, remember there's two elements. There's a
15 resource side and then there's the culture, commitment,
16 motivational side.

17 On the resource side, there's no doubt that cash
18 flow would be -- would be hit by any kind of punitive
19 damages payment. That's where it comes from. And in my
20 mind, there's no doubt that that would reduce the total
21 resources available as compared to the situation where there
22 weren't significant punitive damages.

23 Does that have an effect on R&D? Yes, definitely
24 there would be an effect. I just cannot -- as I sit here
25 right now, I can't quantify that for you.

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1 Q. Do you think the impact on R&D is likely to be the
2 same for Philip Morris as for R.J. Reynolds?

3 A. I haven't run a model of R&D expenditure for each
4 of those companies, but it would be qualitatively the same.
5 It may not be quantitatively the same.

6 Q. You understand, don't you, that Philip Morris in
7 terms of resources available -- cash, cash flow -- is
8 considerably stronger than RJR?

9 A. There's more of it, if that's what you mean by
10 stronger, yes.

11 Q. So would it in your opinion take a larger total
12 sum of punitive damages to have this impact on Philip Morris
13 than it would on RJR?

14 MR. ESCHER: Objection. Vague.
15 Go ahead.

16 THE WITNESS: From an economic point of view, I
17 would expect the effect to be somewhat proportional. I mean
18 it's not -- the models that I've looked at don't show that
19 once you get down to a certain level of cash flow that
20 there's any structural difference in the model; that it's
21 basically the same no matter the starting level of R&D. So
22 I'll go back and rereview those -- that literature that's
23 out there, but as I sit here right now I think that the
24 qualitative effect would be approximately the same in the
25 two companies.

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1 MR. BROWN: Q. You're referring to models that
2 have been discussed in published literature?

3 A. Yes.

4 Q. Would you give me the citation of the literature?

5 A. Well, there's one article that I did that was
6 actually on the petroleum industry looking at R&D and cash
7 flow. It was published in the Bell Journal of Economics
8 about 1979. Excuse me. No. It was published in Review of
9 Economics and Statistics, sorry.

10 Q. Can you give me a cite to that?

11 A. It's in my CV, actually, if you --

12 MR. ESCHER: We've got a copy of the CV and the
13 list of documents reviewed now.

14 MR. BROWN: Sure.

15 Q. Is this an article that was published under your
16 authorship or co-authorship?

17 A. Yes, it was.

18 MR. BROWN: Are these all different, Joe
19 (indicating)?

20 MR. ESCHER: No, they're copies of the same thing.

21 MR. BROWN: How come I'm looking at three?

22 MR. ESCHER: Because I thought you might like to
23 have one marked as an exhibit.
24 MR. BROWN: Great. We'll give him a break.
25 (Exhibit 1 marked.)
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1 THE WITNESS: There is, on page 4 --
2 MR. BROWN: Q. Is that in this (indicating)?
3 A. The CV.
4 MR. ESCHER: You're looking at different things.
5 MR. BROWN: That's what I thought.
6 THE WITNESS: Page 4, number 7, Vertical
7 Integration and Technological Innovation.
8 MR. BROWN: Can we have a copy of that?
9 MR. ESCHER: I'm going to give you that copy of
10 the CV.
11 MR. BROWN: Q. Item number 7?
12 A. Yes.
13 Q. Could I circle that?
14 A. Yes.
15 Q. Is that okay on this one?
16 A. Yes.
17 Q. On the CV, he's got a page number, page 4, number
18 7. Okay. Go ahead and explain just generally what was that
19 article?
20 A. Yes. That's an example of a class of models that
21 endeavor to explain what drives R&D expenditure. Now, in
22 this particular article I was actually looking -- I wasn't
23 looking for the effect of cash flow; I was looking for the
24 effect of vertical integration which I found, but I also
25 found this other very significant result, namely that what
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1 was driving research and development was cash flow. And
2 that's a result that I subsequently found was quite general
3 across many different industries.
4 Q. This was not a model based upon punitive damages
5 but on cash flow for whatever reason?
6 A. That's right.
7 Q. It was reduced and therefore your model indicated
8 reduced R&D?
9 A. Exactly. Anything that reduces research -- excuse
10 me. Anything that reduces cash flow, if not this year then
11 in some subsequent year, will reduce R&D and vice versa.
12 Q. Are there any other articles in there that deal
13 with the idea that reduction of cash flow equals reduction
14 of R&D?
15 A. Well, there's a whole raft of articles on
16 innovation that very much speak to the decision-making
17 processes around innovation. I may draw your attention to
18 24.
19 Q. Page number?
20 A. Page number 5. There is --
21 Q. Before you look any further maybe we could mark
22 that and I'll give it back to you.
23 A. Sure.
24 (Exhibit 2 marked.)
25 MR. BROWN: Q. So the CV we've been talking
0027
1 about, page 4, item number 7, that's on Exhibit 2. And
2 you've just referred to page 5, number 24. And let me just
3 figure the document again by circling number 24. It looks
4 like several are mentioned in there, several articles.
5 A. Well, it's the same article being republished and
6 translated into foreign languages and so forth.

7 They don't specifically deal with the cash flow
8 point, but they deal with the overall factors that drive
9 innovation.

10 Q. Are we looking -- are 7 and 24 something that you
11 wrote or co-authored?

12 A. Yes. Yes. All of the articles listed on here are
13 my publications that I've either authored or co-authored.

14 Q. Okay. Have you found any literature which
15 discusses the reduction of R&D as a result of punitive
16 damages?

17 A. I don't know as I sit here right now of something
18 that specifically makes that point or that level of
19 granularity, but as I have said before, it's certainly
20 recognized that punitives affect cash flow, and people
21 familiar with this literature would -- would therefore
22 conclude that to the extent to which those models were
23 applicable, then, indeed, there would be an effect that
24 would trace right through.

25 Q. Okay. As I'm understanding it, I may be too
0028 1 simplistic, it sounds like you're saying in your opinion
2 punitive damages equals reduced cash flow equals reduced
3 R&D?

4 A. That's what the evidence tends to show, yes.

5 Q. Now, on Exhibit -- I guess it's number 1, there
6 are some journals or some articles noted. Do any of these
7 articles on number 1 discuss the impact of punitive damages
8 on research and development?

9 A. In a general sense, yes, they do. In a specific
10 sense, I don't believe they do.

11 Q. What do you mean by general sense?

12 A. Well, they, you know, are typically written at a
13 somewhat higher level of abstraction where they're not
14 necessarily talking about specific industries and specific
15 fact situations; they're somewhat more abstract treatments.
16 But someone familiar with this literature would certainly
17 read them as being relevant to the issues at hand.

18 Q. Is there general discussion in any of these
19 articles that are cited on Exhibit 1 that generally
20 discusses the impact of punitive damages on research and
21 development?

22 A. Well, you know, Viscusi talks about safety.

23 Q. I'm sorry. Which one?

24 A. Viscusi, number 9, talks about the impact on
25 safety. Wiggins talks very much about this idea about
0029 1 shallow pockets that I've talked about before, you know,
2 which is if you hit -- if you hit deep pockets you incent
3 the shallow pockets, and the shallow pockets are companies
4 less well equipped to engage in the kind of expensive
5 research and development programs that are thought to be
6 necessary in order to come up with something better.

7 Q. Is Wiggins number 8?

8 A. Yes. Well, and number 7.

9 Q. Any other where these articles generally discuss
10 the relationship between punitive damages and research and
11 development?

12 A. Well, number 12 which talks about potential
13 insolvency. Of course, one does not have to make a large
14 leap from insolvency to recognize that cash flow is -- is
15 impaired and to trace that through to a potential effect on
16 R&D expenditure.

17 Q. You draw a conclusion that if one is insolvent

18 they don't do much R&D? Is that the idea?
19 A. If they're insolvent, their cash flow is usually
20 impaired. If cash flow is impaired, then usually the first
21 thing to be hit is research and development because it's
22 considered by some to be discretionary.
23 Q. Okay. Any of these other articles?
24 A. Not that I recall as I sit here right now.
25 Q. Now, in order for there to be an impact on any
0030
1 aspect of corporate conduct, good or bad, would you agree
2 there has to be some minimum level of punitive damages that
3 has occurred?
4 MR. ESCHER: Could you read that question back,
5 please?
6 (Question read as follows:
7 Q. Now, in order for there to be an impact
8 on any aspect of corporate conduct, good or bad,
9 would you agree there has to be some minimum level
10 of punitive damages that has occurred?)
11 MR. ESCHER: Objection. Vague.
12 Answer the question if you can.
13 THE WITNESS: As I understand it, no. I mean
14 these very models that we look at that show a relationship
15 between cash flow and R&D expenditure enable you to as a
16 statistical matter say that every dollar has an impact.
17 That's what they show. Every dollar of reduction in cash
18 flow has a corresponding reduction in R&D expenditure. It
19 may be small, but it's nevertheless there. It's not -- what
20 they don't show is there has to be some large jump in
21 reduction in cash flow for there to be effect -- to be an
22 effect. That effect is there at all levels of cash flow.
23 MR. BROWN: Q. Using the word "significant" twice
24 in my next question, which I hope is not confusing, would
25 you agree that there has to be a significant award of
0031
1 punitive damages obligation before there is a significant
2 reduction in research and development? Significant there
3 may mean something different on those two sides of the
4 equation, but what do you think about that? Do you agree
5 with that or not?
6 MR. ESCHER: I'm going to object. Vague.
7 Go ahead and try and answer.
8 THE WITNESS: I'm not sure I actually understand
9 that one.
10 MR. BROWN: Q. Let me ask a hypothetical. If a
11 punitive damage award was to be awarded against Philip
12 Morris in a cigarette case such as this one and it was for
13 \$100 and there was never another punitive damage award,
14 would you agree that that would have no effect on their
15 research and development?
16 MR. ESCHER: Objection. Lack of foundation. Go
17 ahead.
18 THE WITNESS: No, I wouldn't. In fact, what these
19 models show is that there would be an effect, albeit a very
20 small one, but it would be an effect.
21 MR. BROWN: Q. Okay. Now, would it be a
22 significant effect?
23 MR. ESCHER: It being the \$100 in punitive
24 damages?
25 MR. BROWN: Um-hmm.
0032
1 MR. ESCHER: Go ahead.
2 THE WITNESS: It's certainly going to be a number

3 less than \$100. I don't know if you call that significant
4 or not. There would be an effect is all I can say.

5 MR. BROWN: Q. Well, without going through 50
6 more hypotheticals where we climb the ladder on the amount
7 of money involved, have you arrived at an opinion as to
8 where -- as to what that minimum punitive damages obligation
9 would have to be before R.J. Reynolds would be in a position
10 where their cash flow was substantially reduced?

11 MR. ESCHER: Objection. Vague.

12 THE WITNESS: Yeah, I don't think I understand
13 that question as framed.

14 MR. BROWN: Q. All right. Cash flow is a concept
15 that -- well, let me withdraw that.

16 RJR is spending X number of dollars today on
17 research and development, correct?

18 A. Yes.

19 Q. Do you have any idea how much they're spending
20 directly on the idea of attempting to improve the safety of
21 their products?

22 MR. ESCHER: Objection. Vague.

23 THE WITNESS: Not as I sit here right now, no.

24 MR. BROWN: Q. Okay. At what level of punitive
25 damage obligation is it your opinion, if you have one, that
0033
1 whatever they're now spending toward attempting, assuming
2 they are, to obtain a safer cigarette would that be impacted
3 by punitive damages?

4 A. Well, I just testified that what the models show
5 is that every dollar in reduction in cash flow has a
6 corresponding effect on R&D, and albeit a small one. I
7 haven't done anything to -- to look beyond that.

8 Q. All right. And I'm just trying to get a handle on
9 what you're saying there. You're not saying, are you, that
10 every dollar of punitive damages translates to a dollar of
11 research and development decreased spending?

12 A. No.

13 Q. And when cash flow is reduced, there's an impact
14 across the corporate expenditures, isn't there?

15 MR. ESCHER: Objection. Vague. Lack of
16 foundation.

17 THE WITNESS: When cash flow is reduced it tends
18 to have ramifications in many areas.

19 MR. BROWN: Q. Right.

20 A. But, as I said before, across corporate America,
21 R&D has frequently been hit first because some people think
22 of it as being discretionary.

23 Q. Well, I want you to assume that X number of
24 dollars are being spent by RJR on research and development
25 which has as its goal putting into commercial sales a
0034
1 cigarette safer than the brands they now sell. I'm not
2 going to tell you how much, we'll just use X.

3 A. Okay.

4 Q. Okay. Now, have you attempted to arrive at an
5 opinion as to what level of punitive damages would have
6 become an obligation of RJR before X in R&D directed at
7 trying to attain a safer cigarette than the brands they now
8 sell would be reduced significantly?

9 MR. ESCHER: Objection. Vague. Go ahead.

10 THE WITNESS: I haven't done that type of
11 quantitative study.

12 MR. BROWN: Q. Okay. You're aware, aren't you,
13 that RJR -- neither RJR or Philip Morris have paid any

14 punitive damages as a result of cigarette litigation?
15 A. Yes.
16 Q. And you're aware, are you, that there are only two
17 pending punitive damage awards that are on appeal as we sit
18 here today?
19 A. Yes.
20 Q. And if I'm not mistaken, these gentlemen will
21 correct me if I am, those two awards are one is for
22 \$40 million and one is for \$25 million. Are you aware of
23 that?
24 A. I'm not aware of the amounts.
25 Q. Okay. Assume that there's an Oregon case where
0035
1 the trial judge reduced an \$80 million award down to
2 40 million, and that there's a San Francisco case where
3 there was a \$50 million award reduced down to 25 million.
4 So we have a 65 million total obligation pending against
5 Philip Morris. Okay?
6 A. Okay.
7 Q. In your opinion, would that have any significant
8 impact on Philip Morris' R&D directed at trying to attain a
9 cigarette safer than their existing brands should that
10 65 million become an obligation?
11 MR. ESCHER: Objection. Vague.
12 Go ahead.
13 THE WITNESS: I really can't add beyond what I've
14 already said, namely, that the general class of models that
15 have been tested across corporate America show that there
16 would be effect, an effect. Without doing a specific
17 quantitative study and without knowing what significant is,
18 I can't go further.
19 MR. BROWN: Q. How would you do a quantitative
20 study on that subject? What would you look at?
21 A. Well, you would estimate the coefficient
22 associated with the cash flow and R&D, and then you would
23 have to plug in different levels of punitive damages and
24 expected punitive damages, because to the extent to which
25 one might have to reserve or do other things on the
0036
1 financial statements to accommodate punitives, that could
2 also have an effect.
3 Q. Do you know whether or not either RJR or Philip
4 Morris have reserved any funds for potential punitive
5 damages?
6 A. No.
7 Q. If either of those companies believed that they
8 were facing substantial risk of serial punitive damages,
9 would you expect them to create a reserve?
10 MR. ESCHER: Objection. Lack of foundation.
11 MR. BROWN: Q. Assuming that they follow good
12 accounting business principles?
13 MR. ESCHER: Objection. Vague.
14 THE WITNESS: My area of expertise is not
15 financial reporting, so I have no comment.
16 MR. BROWN: Q. Okay. Well, how about just from a
17 business standpoint? Would you expect some reserve of funds
18 to take place if a company expected large serial punitive
19 damages to come down the pike in the future?
20 MR. ESCHER: Objection. Lack of foundation.
21 Vague.
22 THE WITNESS: I don't consider that to be within
23 my area of expertise.
24 MR. BROWN: Q. Okay. Now, let's take that

25 65 million that I asked you to assume from the two cases,
0037

1 Oregon and San Francisco. Do you have an opinion as to
2 whether or not the fact that those awards were made and
3 assuming that they have not been upheld through a complete
4 appellate process, but do you have an opinion as to whether
5 or not the mere fact of the award has had any impact on
6 Philip Morris' research and development expenditures?

7 A. I don't have an opinion on that. As I have said
8 before, what the studies show is the reductions in cash flow
9 affect reductions -- or cause reductions in R&D. Inasmuch
10 as those awards haven't been paid, you wouldn't necessarily
11 expect to find an effect yet. But if in fact they become
12 affirmed and then the awards are paid, then you would expect
13 an effect.

14 Q. Have you had a discussion with anybody at Philip
15 Morris to determine whether or not Philip Morris would
16 significantly reduce their research and development if they
17 were obligated to pay substantial amounts of punitive
18 damages?

19 A. No.

20 Q. Have you had that kind of conversation at RJR?

21 A. No.

22 Q. Have you looked at any internal corporate
23 documents from either company which gave you an indication
24 of what those corporations would do if they arrived at a
25 point in time where they had substantial obligations to pay
0038

1 or had paid punitive damages in substantial amount?

2 A. No.

3 MR. ESCHER: Objection. Vague.

4 MR. BROWN: Q. Do you have an opinion as to when
5 punitive damages in excess of \$100 million may become an
6 obligation of Philip Morris over the next five years?

7 MR. BARRON: Let me have that reread, please.

8 (Question read as follows:

9 Q. Do you have an opinion as to when
10 punitive damages in excess of \$100 million may
11 become an obligation of Philip Morris over the
12 next five years?)

13 MR. ESCHER: Objection.

14 MR. BROWN: Within the next five years.

15 MR. ESCHER: Vague.

16 MR. BARRON: I'll join. I assume, incidentally,
17 if Joe objects I don't have to really join?

18 MR. BROWN: Absolutely. You just have to laugh.
19 When you laugh I know you're objecting.

20 Go ahead.

21 MR. ESCHER: Well, he doesn't have to laugh,
22 either.

23 MR. BROWN: You don't even have to laugh.

24 MR. ESCHER: The rule we've had in all these
25 depositions is one objection counts for everyone's.

0039

1 MR. BROWN: Sounds like a good rule.

2 THE WITNESS: No.

3 MR. BROWN: Q. Have you reached an opinion as to
4 any amount of punitive damages that may become an obligation
5 of either RJR or Philip Morris at any point in time in the
6 future?

7 A. No.

8 Q. Can I assume that you don't expect to do that
9 between now and when you testify in this trial, assuming

10 there is something for you to testify about?
11 A. Yes.
12 Q. You will do it? Oh, I'm sorry. I can assume that
13 correctly?
14 A. Yes.
15 Q. My fault, the way the question was asked leaves --
16 A. You can assume that I won't be doing any
17 additional work in that area.
18 Q. Thank you. Thank you for straightening out my
19 question. All right.
20 Somewhere around here is that designation.
21 Do you have an opinion as to the degree of impact
22 on either RJR or Philip Morris that's likely to occur in the
23 future from punitive damages?
24 MR. ESCHER: Objection. Vague.
25 THE WITNESS: I don't understand the question.

0040

1 MR. BROWN: Well, let me try it again.
2 Q. Have you formed an opinion as to what is likely to
3 occur in the future in terms of the degree or the
4 quantitative amount of impact on research and development
5 that is likely to occur from future punitive damage
6 obligations of either company?
7 MR. ESCHER: Objection. Vague.
8 THE WITNESS: No.
9 MR. BROWN: Q. Have you reached an opinion as to
10 what degree or quantitative amount of impact is likely to
11 occur in the tobacco industry as result of future punitive
12 damage awards?
13 A. No. The only thing that I have done is I've
14 observed that there are a large number of these cases out
15 there. And as I've said before, every dollar that's paid in
16 punitives will have an effect, and cumulatively large
17 dollars will have large effects.
18 Q. As I understand it, though, you're not saying that
19 every dollar paid or obligated to be paid in punitive
20 damages will affect R&D, but some portion of every dollar
21 will affect research and development? Is that -- would that
22 be accurate?
23 A. Yes.
24 Q. You may have answered this, but in number 2 where
25 I'm still residing for the time being, the phrase "future

0041

1 innovation." I think you mentioned that you had in mind
2 there research and development aimed at the development of a
3 cigarette safer than any brand they now sell. I think you
4 said that, in part at least.
5 A. Yes, I did talk about safer cigarettes.
6 Q. Okay. Any other research and development aspect
7 or any other thing that you mean by future innovation other
8 than that?
9 A. Well, obviously there's a lot of testing and
10 market development associated with that.
11 Q. Sure.
12 A. It's not just a technical challenge; it's also a
13 marketing challenge. There's a whole plethora of things
14 that must be done in order to get a new product into the
15 marketplace.
16 Q. So would your future innovations then include the
17 science, the development, and the marketing of a brand or a
18 cigarette that would be safer than any existing brand?
19 A. Yes, it would include the plethora of things. You
20 know, the R&D is perhaps from a dollar expenditure point of

21 view one of the smallest. Being able to market something
22 that is different, not traditionally what people have
23 consumed may involve just as great a challenge as is the
24 technical ones.

25 Q. All right. You mentioned as to one of your
0042

1 impacts on R&D the idea that the corporation culture can
2 take the attitude that they're damned if they do or damned
3 if they don't. And I think that was in reference to
4 attempting to attain a safer cigarette. Is that correct?

5 A. Well, I made the reference that one had to take
6 into account from an economic point of view in thinking
7 about punitives that if you imposed a financial sanction and
8 did not recognize the efforts that had been already
9 conducted to improve cigarettes and make them safer that
10 there was always the risk that even though management might
11 well be committed to moving programs forward that the
12 corporate culture would be less committed.

13 Q. All right. Would you --

14 A. And that was a statement about human nature more
15 than it was a statement about corporate behavior.

16 Q. All right. Would you give me a list of what
17 you're assuming has been done by either Philip Morris or RJR
18 in order to attempt to make a safer cigarette?

19 A. Well, you know, I believe that there was testimony
20 about reductions in tar in particular. And I think people
21 are generally familiar with the so-called tar derbys. And I
22 mentioned filters. I mentioned -- I meant to mention, at
23 least, reconstituted tobacco. And then the efforts with
24 Premiere and Eclipse and some other new products that Philip
25 Morris and RJR endeavored to bring into the marketplace.

0043

1 Q. Did you read some of the testimony in this trial?

2 A. No.

3 Q. Was some of it quoted to you?

4 A. No.

5 Q. When you referenced testimony just now, what were
6 you talking about?

7 A. Deposition testimony.

8 Q. Of who?

9 A. I don't recall the names, although I'm generally
10 familiar with the efforts that we're talking about here.

11 Q. Were you aware that consistently in the trial
12 scientists who appeared for Philip Morris and RJR have
13 testified that they could not make the claim that any
14 cigarette that they had, any change or any scientific
15 development that they had put together had made any other
16 brand safer?

17 MR. ESCHER: Objection. I think that misstates
18 the testimony.

19 THE WITNESS: You mean that they couldn't make --

20 MR. BROWN: That was poorly stated. Let me try
21 again. Let me try again, that was poorly stated.

22 Q. Are you aware that there was consistent testimony
23 by the scientist witnesses that came from RJR and Philip
24 Morris that, despite whatever they had done in their
25 laboratories over the years, they could not make the claim
0044

1 that any cigarette that had been developed over the last 40
2 years was any safer than any other cigarette?

3 MR. ESCHER: Objection. Misstates the testimony
4 at trial.

5 THE WITNESS: When you say they couldn't make the

6 claim, you mean the companies couldn't make the claim
7 publicly? Or that they themselves couldn't make the claim
8 scientifically?

9 MR. BROWN: Q. The latter.

10 MR. ESCHER: I have the same objection in that it
11 misstates the trial testimony.

12 THE WITNESS: I'm not familiar with that.

13 MR. BROWN: Q. If that were accurate, if what I
14 have said was accurate in terms of their testimony as
15 opposed to what Mr. Escher believes, would that change your
16 opinion in any way on this "damned if we do and damned if we
17 don't" approach?

18 MR. ESCHER: Objection. Vague.

19 Go ahead.

20 THE WITNESS: Could I have your claim again, the
21 way you represented the evidence?

22 MR. BROWN: Q. Okay. That notwithstanding
23 whatever research has been done and whatever scientific
24 advancement has been done, there is no brand of RJR
25 cigarette or brand of Philip Morris cigarette that is safer
0045

1 than any other.

2 A. And the question is?

3 Q. If that's true, would that impact your opinion on
4 the concept that the culture would be subject to this
5 "damned if we do and damned if we don't" effect?

6 A. I don't think that would be a particularly big
7 factor, because the real critical thing is the effort. I
8 mean the effort has to be recognized that there was genuine
9 effort to improve cigarettes from a public health
10 perspective. And, you know, that stands irrespective of
11 just what level of success in any technical sense was
12 obtained.

13 Q. So your opinion, then, would require you to assume
14 that there was a genuine effort by these companies to make a
15 safer cigarette?

16 A. That particular opinion, yes, would require the
17 fact that the efforts were directed towards coming up with a
18 safer cigarette.

19 Q. Okay. Let's see if we can move on to number 3
20 which I'll read into the record. And you have it before
21 you, I think, don't you, sir?

22 A. Yes.

23 Q. "The terms and conditions of the Master Settlement
24 Agreement and the impact of the agreement on defendants'
25 business practices." Can you tell me what your opinion is
0046

1 about that?

2 A. Yes. The MSA and the related agreements with the
3 other four states in my mind are -- have had and will
4 continue to have a significant effect on the behavior of the
5 industry. You know, the background point here is with
6 punitive damages you're trying to change behavior. And the
7 MSA to me is an agreement that brings about considerable
8 behavior modification, including in areas that are relevant
9 to this lawsuit, such as, you know, fraud and other
10 allegations that have been made.

11 So in some sense, the behavior that you might
12 otherwise expect or wish to modify through punitives has
13 already been modified by agreement through the MSA and the
14 other agreements.

15 Q. By the MSA? In your opinion, punitive damages
16 would not add anything to the deterrent value that the MSA

17 has not already provided?

18 A. I do believe that certainly in the area of fraud
19 and misrepresentation, I do believe that the MSA is
20 comprehensive and expansive. It provides disclosure of
21 information on websites. There's a much greater degree of
22 transparency that is effectuated as a result of the MSA. So
23 in some sense, from the economic point of view, the job is
24 already done.

25 Q. Has the companies treated the MSA payments as a
0047
1 cost of business as opposed to a punishment?
2 MR. ESCHER: Objection. Vague. Lack of
3 foundation.
4 THE WITNESS: Yeah, I don't know what you mean by
5 a cost of doing business.
6 MR. BROWN: Q. Have they treated it that way in
7 terms of the way they've treated those payments on their tax
8 returns?
9 A. Well, I'm sure they've treated it as an expense
10 that reduces their taxable income.
11 Q. Right. You're aware that they cannot deduct
12 punitive damages?
13 A. Yes, I believe that's correct.
14 Q. But they have deducted the MSA obligation that
15 they have paid?
16 A. I would expect them to, yes.
17 Q. All right. With respect to Philip Morris, do you
18 know what has actually been paid and when it was paid?
19 A. No.
20 Q. Same question with RJR, do you know?
21 A. No.
22 Q. Do you know what amounts are called on for RJR to
23 pay over the next five years?
24 A. Not over the next five years. I believe over the
25 next -- through the year 2025.
0048
1 Q. It's longer than that. I'm just talking about the
2 next five years.
3 A. Over through to 2025 I think under the MSA and
4 four state agreements it's cumulatively close to \$250
5 billion. So you could take some portion of that. And then
6 after that, I believe it's 9 billion a year after that.
7 Q. Have you looked at the question of whether or not
8 RJR or Philip Morris can handle the MSA payments by
9 increasing prices? Have you looked at that question?
10 A. Well, what do you mean by handle?
11 Q. Avoid any impact on their corporate culture by
12 simply raising their prices of their cigarettes.
13 MR. BARRON: Objection. Vague.
14 MR. ESCHER: Objection. Vague.
15 MR. BROWN: Q. If they have to pay a buck to the
16 MSA, they raise their prices a buck and it's a wash.
17 A. No, it's not a wash. Economic analysis is very
18 clear that unless you have a perfectly inelastic demand
19 curve -- and cigarettes do not have a perfectly inelastic
20 demand curve -- then it cannot be a wash.
21 Q. My question is more basic than that. Have you
22 considered the question of the offsetting ability to raise
23 prices against the MSA obligations?
24 A. Yes, I'm aware that obviously some part can be
25 captured through price increases. But what economics makes
0049
1 very clear is that not all of it can be recovered that way.

2 Q. Do you have any other opinion on the relationship
3 of price increase ability against the MSA obligations of
4 these companies?

5 MR. ESCHER: Objection. Vague.

6 THE WITNESS: Well, you know, there are definitely
7 limits on the ability to pass on because of the elasticity
8 of demand for cigarettes.

9 MR. BROWN: Q. Have the companies, in your
10 opinion, already covered the obligations that have come due
11 with price increases?

12 MR. ESCHER: Objection. Vague.

13 THE WITNESS: I don't know what you mean by
14 covered the obligations. I mean if by that do you mean have
15 they paid what's due, I suspect they have. But they
16 haven't, quote, covered it in any meaningful economic sense
17 through price increases.

18 MR. BROWN: Q. Do you have an opinion as to
19 whether or not the MSA payments have been equaled and in
20 fact are less than the additional revenue that has come to
21 these companies through price increases?

22 A. I haven't studied the particulars.

23 Q. Okay. Let's see, let's go on to 4 which I think
24 is something like 3 except we throw in the serial punitive
25 damage awards. And it reads: "The financial obligations
0050
1 created by the Master Settlement Agreement and defendants'
2 abilities to meet these obligations in the face of serial
3 punitive damage awards."

4 A. May I point out that we can cross out "and the
5 defendants' abilities to meet these obligations." I'm
6 not -- I do not expect to be asked to testify on that, nor
7 do I have an opinion on it.

8 Q. Thank you. That saved a good deal of time.

9 A. Okay. And, too, while we're on that same --

10 Q. Everything from "and defendants' abilities" onward
11 I cut out?

12 A. Excuse me. No. Leave in the words "in the face
13 of serial punitive damage awards" so that it now reads:
14 "4. The financial obligations created by the Master
15 Settlement Agreement in the face of serial punitive damage
16 awards."

17 Q. What is your understanding of what you will be
18 testifying at the trial with respect to number 4, then, as
19 you've rewritten it?

20 A. Well, you know, I'll point out that the Master
21 Settlement Agreement involves very, very substantial
22 payments. Payments that are greater than the profits of the
23 industry at the time and payments that are, when looked at
24 particularly alongside the tax payments, are extremely
25 large.

0051
1 Q. Do you have an opinion as to what percentage of
2 the Master Settlement Agreement obligations by either of
3 these companies they will also face in the future from
4 punitive damage awards?

5 MR. ESCHER: Objection. Vague.

6 THE WITNESS: I don't understand the question.

7 MR. BROWN: Q. Well, let's assume just for
8 discussion that the Master Settlement Agreement requires
9 them to pay \$2 billion a year. Using that just as a
10 hypothetical number, have you attempted to reach an opinion
11 as to what future punitive damages that will become
12 obligations of these companies will be as a percentage of

13 that?
14 A. No.
15 Q. So -- well, strike that.
16 Now, on number 5 -- well, before I leave 4, I
17 should ask this: Do you have an opinion on what the
18 financial obligations are as created by the MSA?
19 A. Yes. As I told you, cumulatively through 2025
20 it's about 250 billion. And I believe it's 9 billion a year
21 in perpetuity after that.
22 Q. What is the RJR obligation per year for year 2000?
23 A. I don't have that number in my head right now.
24 Q. What is it per year over the next five years?
25 Just give me a ballpark. When we're talking about billions
0052
1 you don't have to be too close.
2 A. As I told you, the two numbers I looked at as I
3 remember as I sit here right now are the cumulative totals.
4 I certainly have data that possibly assist in figuring that
5 out, but I don't have -- I don't have that number as I sit
6 here right now.
7 Q. Isn't RJR's obligation approximately \$2 billion a
8 year?
9 A. I don't recall specifically. It's not
10 inconsistent with my understanding, but I can't endorse that
11 number as I sit here right now.
12 Q. This \$250 billion number, is that the total MSA
13 obligation of all the companies that are involved in the
14 settlement?
15 A. Yes, through 2025.
16 Q. And what percent of that is RJR's?
17 A. I don't recall, as I've said, as I sit here right
18 now.
19 Q. What's the percentage that's Philip Morris'?
20 A. I just don't have that number at my fingertips.
21 Q. I'm not quite sure how to blend the first part of
22 number 4 with the second part. "The financial obligations
23 created by the Master Settlement Agreement." Okay. I
24 understand that part. Then it says "in the face of serial
25 punitive damages award." What does that mean, the way
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1 that's put together?
2 A. Well, it means that, you know, you have to -- in
3 terms of the issues we were discussing earlier, you have to
4 look at the fact that maybe there is some duplication
5 inasmuch as the behavior modification that one is seeking to
6 effectuate through punitives is already accomplished with
7 the MSA.
8 Q. Okay. Do you have an opinion as to whether any
9 punitive damage award in this case would have any
10 significant impact on the amount of money spent by Philip
11 Morris on their R&D?
12 A. Well, as I've said before, the models show that
13 there is an effect, and it's -- you know, every dollar
14 counts. There is an effect, but I haven't endeavored to
15 quantify it.
16 Q. Okay. What percentage of a punitive damage award
17 in this case would, in your opinion, if you have an opinion,
18 translate to an impact on decreasing research and
19 development in either RJR or Philip Morris?
20 A. Can I have that again?
21 (Question read as follows:
22 Q. Okay. What percentage of a punitive
23 damage award in this case would, in your opinion,

24 if you have an opinion, translate to an impact on
25 decreasing research and development in either RJR
0054
1 or Philip Morris?)
2 MR. ESCHER: Objection. Vague.
3 THE WITNESS: As I've told you before, I haven't
4 done any specific quantitative analysis.
5 MR. BROWN: Q. Okay. And I think you agreed that
6 whatever the impact was, it would be a percentage of the
7 punitive damage award, not 100 percent?
8 A. Yes.
9 Q. All right. Let's move on to number 5. "The
10 collateral harm of serial punitive damages." I think maybe
11 I can go through that very quickly.
12 You're going to testify that there's harm to those
13 people or to those groups that are mentioned in number 5
14 that comes from punitive damages? Is that the idea?
15 A. Well, sort of. I mean what I will testify to is
16 that, you know, the corporation in the end is not an
17 abstract entity but there are stakeholders that are
18 associated with the corporation: Shareholders, suppliers
19 and the like that will essentially bear the brunt of
20 punitive damages.
21 Q. Who do you include by tobacco market participants?
22 A. Well, basically, certainly, it's suppliers, it's
23 distributors, it's retailers, it's wholesalers. It's
24 basically the whole vertical supply chain as it's sometimes
25 referred to, as well as back up to -- to shareholders and
0055
1 pension funds that hold stock and so forth.
2 Q. All right. What would the collateral harm be to
3 consumers?
4 A. Well, there is also the possibility that some
5 could be -- there could be an effect on price. That's also
6 a possibility.
7 Q. Any other impact?
8 A. Well, yes. What I'm talking about before --
9 Q. On consumers.
10 A. Yes. The impact on R&D. I mean to the extent to
11 which it reduces R&D expenditure, to the extent to which R&D
12 expenditure reduces activity that benefits consumers through
13 new products, then consumers are impacted that way as well.
14 Q. And what would be the harm for future litigants?
15 A. Well, I mean at some point the cupboard may be
16 bare. If you end up in a Chapter 11 scenario, then future
17 litigants couldn't even pick up compensatory damages because
18 others have possibly gotten punitives.
19 Q. Okay. Let's go on to 6. As I understand --
20 A. 6 I have now eliminated, so you can save yourself
21 your effort on that one.
22 Q. Oh, boy. That's very good news. I appreciate
23 that.
24 Do you have an opinion as to whether or not
25 punitive damages should be awarded in this case?
0056
1 MR. ESCHER: Objection. Asked and answered.
2 THE WITNESS: No, I'm not giving an opinion on
3 that.
4 MR. BROWN: I think that's all.
5 MR. BARRON: I have no questions at this time.
6 MR. ESCHER: Okay. Thanks.
7 (Whereupon the taking of the Witness' testimony
8 was concluded at 6:34 p.m.)

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DATE

SIGNATURE of the WITNESS